

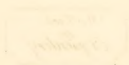
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Mallach
on
Dysentery

1849



An
Inaugural Essay
On

Dysentery.

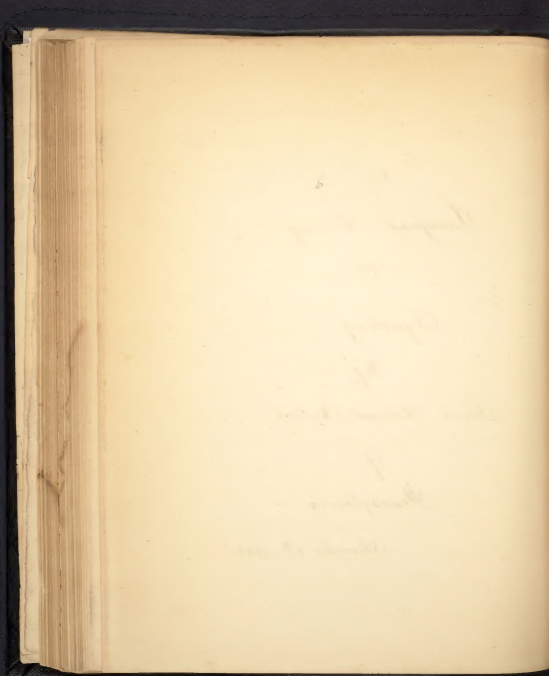
By

Isaiah Richard Mallock.

of

Pennsylvania.

November 5th 1825.



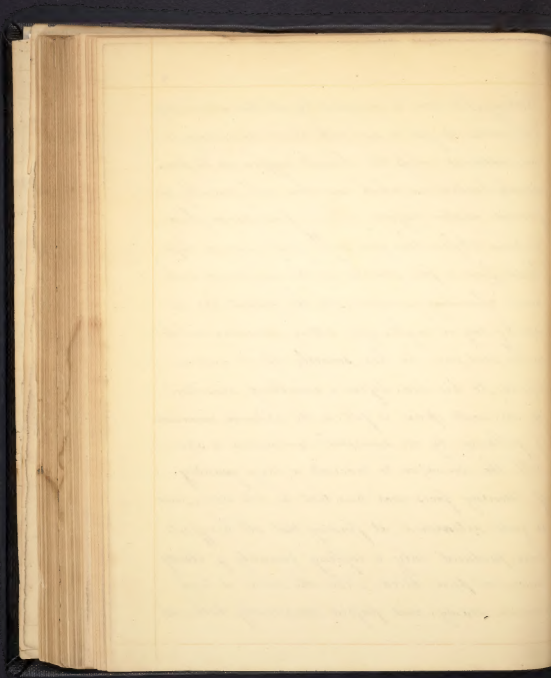
Dysentery

The atmospheric temperaments mostly calculated to produce severe bowel complaints are those of summer and autumn, when the liver is excited to a larger secretion of perhaps more pungent bile, from the excessive heat of the weather, the skin is exposed to more sudden transitions from free to checked perspiration, and the exhalation that rises so copiously from marshes and other low grounds, which gives an epidemic character to the atmosphere and lays a foundation for Intermittent and Remittent fevers, with which this disease is often complicated. There is here sufficient ground for local and general affection, and we may readily see how it is possible from the operation of one of these causes, or all of them in combination on an irritable state of the intestines, for all or any of the local symptoms to be produced which enters into the generic definition of this disease.

The acute form of dysentery is ushered in with considerable fever, which has generally a cold stage or chill anterior to the heat and reaction.

In some instances the fever runs high for several hours before there is any local demonstration of dysentery, clearly showing that in such cases, the whole system is first affected, and the local disease is determined by the accidental predisposition of some particular organ as the intestines, liver, lungs &c. Hence the same cause which in one person will induce dysentery may in a second cause hepatitis, in a third enteritis, and in a fourth pneumonia, according to the previous weakness of this or that viscus. In this acute form of dysentery when the determination is to the bowels, the symptoms generally usher themselves in with violence and rapidity. The griping is severe, the urgency to stool frequent, the tenesmus distressing, all in the course of a short time after the attack.

Nothing, however, is evacuated by all this straining, but mucus tinged or not with blood, according to circumstances, unless the bowels happen to be previously loaded: in which case, there will generally be feculent matter passed with the first two or three motions. After this you will find more or less blood from a few streaks in the mucus, up to the most alarming quantities. Now the patient has no rest by day or night, after sitting straining awhile on the stool pan, he has scarcely left it and returned to his bed, before a rumbling sensation or an acute pain is felt in the abdomen, immediately followed by an irresistible inclination to stool, with the sensation to evacuate a large quantity of burning feces, each time that he sits down, and is quite astonished at finding that all his efforts have produced only a trifling quantity of bloody mucus or pure blood. Now the urine is high coloured, scanty, and passed occasionally, both with



poor and difficult. the symptoms are all exaspe-
rated at night. and delirium is not uncommon when
the fever runs high. If this acute form of dysentery
be not checked before the expiration of five or six days
there will be great danger of some disorganization
of the intestines or other abdominal viscera, from
the effects of inflammation. These structural arrange-
ments are abscess, ulceration, or mortification, of the
glandular organs in the abdomen. The liver is the
most subject to suppuration, for it is generally
deranged in function from the influence of climate.
entirely to the accession of dysentery.

Mortification may be suspected when the patient,
after great pain and fever is highly relieved
is relieved, and thinks he will soon recover, when he
continues at the same time sinks the pulse fails
and becomes more irregular or intermitting, the extremi-
ties and, indeed, the covered parts of the body
swell. Ulceration is sometimes the result of this disease.



form of the disease and then to violent symptoms and particularly the dysentery may subside but has been or dysenteric phenomena continue in a chronic form of great severity, which seldom admits of cure. Another termination, more favourable than the last, is chronic dysentery, when ulceration of the intestines, but with merely deranged functions of the abdominal viscera in general, and of the intestines in particular.

Chronic Dysentery is mostly a sequel of the acute form though it is said by authors on the subject that it makes its appearance spontaneously without any violent symptoms, from venal derangement: this is denied by others. In this form of the disease the stools are more copious than they are in the acute, but they are accompanied with mucus, or they are passed in a liquid state mixed with morbid intestinal secretions, and not possessing the colour of healthy feces.

The stools are passed with some gripping pain followed by a degree of tenesmus or inclination to sit on the stool pan. After this the patient has recovery of an immunity from pain till the period of the next evacuation. In such cases however the unhappy aspect of countenance in the patient is indicative of visceral obstruction. Although the appetite may be pretty good, the digestion will be found imperfect, evinced by a sense of oppression at the stomach, gas mingles in the stools, undigested portions of food will be visible. The functional derangement of the liver may be recognized by the colour of the stools which presents a deficiency of bile. Under these circumstances the patient will decrease more or less according to the degree of the disease. When ulceration or other organic changes have taken place in the intestines, or when the structure of the liver has suffered during the continuance of the disease, then the pain gripping

and tenesmus will be much worse, the patient will emaciate, the excrements from the intestines contain admixtures of blood or even pus. These are most deplorable cases and very few ever recover perfectly. The occasional or exciting causes of dysentery are all such as are capable of suddenly suppressing the cutaneous transpiration especially after it has been increased, as sudden chills on the surface acting in conjunction with the predisposing cause of an atmosphere varying rapidly from hot to cold and moist to dry, on this account the disease is most frequent in the autumnal months after a hot summer and occasionally epidemic of seasons. But by what means this exciting cause operates upon the large intestines to produce the symptoms of dysentery rather than those of diarrhoea & cholera has not yet been clearly explained. However, the event may be observed daily, that cold suddenly applied to the surface is possessed of a violent power, and throws the action



from the surface on various internal organs, and especially on cavities of mucous membrane, which in consequence of this excitement becomes inflamed, and pours forth an additional secretion, such also is the case in Rheumatism and catarrhs.

Pathology of Dysentery. This has been a fruitful source of discussion among medical writers, and the reason, I think, is that they have confounded causes with consequences; or they have set down the effect of the disease, as the proximate cause. Thus the appearance in the intestines on dissection, of those who have died of dysentery, has led them to conclude that inflammation of the mucous membrane of the intestinal tube was the original sink of the disease. But the true pathological view, I think makes the concomitant inflammation rather an effect of the general excitement, than the original cause of dysentery. It is in dysentery as in fever.



inflammation is not the original cause, but undoubtedly it is the principal effect, which is to be dreaded. As Dr Johnson on tropical climates, confidently asserts that two functions appears to be disordered from the beginning.

These are the perspiration and biliary secretion. Let a dysenteric patient be examined (says he) and if these two functions be found in a natural state at any period of the disease, unless from the effect of medicine, or when the symptoms are giving way, then I am much mistaken.

Partial sweats are sometimes seen on the surface and occasionally admixture of bile in the stools, but these are transitory and morbid, otherwise the regular perspiration is suppressed, and the healthy secretion of bile is stopped. These are the two first links of that morbid change which connects the remote cause with the disease, and if this chain be severed by



an early restoration of these two functions it will be checked. The next link is the disturbance in the balance of the excitability and circulation. As torpor appears to seize the secretory vessels of the liver from sympathy with those of the skin, in consequence of which a venous plethora takes place throughout the whole portal circle, and the mucous membrane of the intestines becomes the seat of irritation and vascular turgescence. The perspiration being now suppressed, a vicarious discharge of mucus and serum is thrown from the extremities of the turgid vessels of the mesentery and intestines, and the symptoms of dysentery are developed. If the plethora be great, blood itself will be poured from these vessels, hence inflammation, and ulceration may ensue. If there be hardened faeces in the cells of the colon they will be grasped by the irritable circular fibres of the



intestine which will augment the tormina and griping in the bowels. In this situation, Nature makes attempts to restore by reaction, the balance of the circulation, and excitability, together with the healthy state of the functions of the skin and liver; but she is less successful in this disease than in most others. Where she gains her end, it is where the local plethra is reduced by evacuations, and where there is not much organic derangement in the bowels. But in a majority of cases, where the disease is violent, the natural exertions of the constitution either hasten the fatal catastrophe, or produce such lesion of structure and function in the chylopoietic viscera as induces a tedious chronic state of the complaint. The febrile symptoms have always appeared to me, to be at first in proportion to the general disturbance in the balance of the circulation; but afterwards they may be kept up by the extent of the organic



derangement sustained by the viscera during the general febrile state of the system.

The discharge of blood by stools, appears to be proportional to the local congestion in the portal and mesenteric circles. Hence we read of dysentery in tropical climates, where the biliary organs are deranged either in function or structure; and dysentery is frequently accompanied with great discharges of blood from the bowels in consequence of the check the circulation meets in the liver, Treatment of Dysentery?

In this as in every other disease, various theories have led to various modes of practice:

Thus those who set down inflammation as the proximate cause of dysentery, consider blood letting as the grand indication of cure, followed by sudorifics, laxatives &c. This practice will generally be successful in common cases.

And those who with Sydenham and Mead,



consider it a fever turned in on the bowels, from suppressed perspiration have recourse to sudorifics to turn it out again, and truly where they can effect this, and keep up a general diaphoresis, the determination is taken from the bowels, and recovery follows.

The third, or especially those in hot climates, finding that a mercurial ptyalism, very often produced, or at least was followed by a cessation of the dysenteric symptoms, became impressed with an opinion that mercury had either some specific power over this disease, or that it being connected with a derangement of the liver, in consequence, the mercury produced a beneficial effect. Thus, if one of these methods, is set down as a principal of practice to the exclusion of the others, it will be attended with inconvenience and uncertainty. But I do maintain that it is only by a judicious combination of them, that



the disease is to be effectually resisted and overcome. I also believe that neither in this nor in any other disease, can a precise treatment be laid down, since in one case, one set of symptoms will predominate, and in a second another set, each requiring a corresponding modification of treatment. The great object is to point out the leading indication. At this I shall make a feeble effort. The first indication is to take off the evident determination of blood to the intestinal canal, together with the unnatural irritation which exists there. And this is done principally, by the restoration of those functions which observation shows to be deranged in dysentery, particularly the functions of the skin and liver. To effect this purpose a strict watch on the operations of nature and the ravages of the disease, is of the highest importance lest serious injury be done by either in the mean time. Thus the symptomatic fever



in dysentery, says Dr Johnson, is a sanative effort of the constitution, to overcome some morbid impression, to restore some impeded function, or to relieve some labouring organ. But her efforts are sometimes too weak, and at others too violent. In assisting, or restraining, her, lies the whole success of the medical attendant. The principle then is the restoration of the equilibrium of the circulation with the healthy functions of perspiration and biliary secretion. To effect these desirable purposes the following combination is an admirable remedy. Take of calomel one grain, Specacuan one grain, opium half a grain, and mix, for a dose; this will fulfil the above indications: mercury to act on the secretions of the liver, Specacuan on the skin, and opium to allay the irritability of the intestinal canal. But besides the local symptoms of, hurgling, griping, and tenesmus, there is high fever, or large discharges of blood from the bowels.

or fixed pain in some part of the abdomen, or all these combined; then the first grand object is to guard against the danger of inflammation and disorganization, by general & local blood letting, proportioned to the urgency of the case; with fomentations, and blisters to the abdomen. The following is a very good ^{embrocation} ~~emulsion~~ of soap liniment one ounce and a half, tincture of opium half an ounce, oil of rosemary one dram, and apply them by flannels rung out of the mixture. And give mollient ~~stools~~ composed of starch, or mutton broth and laudanum. These if they can be retained will, soothe the tenesmus. By these means you will lessen the general excitement, and the local inflammation. Still continuing the internal use of the former combination, every three hours, ordering the patient to keep warm and tranquil, to resist the propensity to stool as much as possible.

Flannels to be put on next the skin, and especially



by the flannel roller round the abdomen, first pointed out, and so highly inculcated by Professor Chapman in bowel complaints; it gives a very comfortable support, and warmth to the viscera within. The lightest possible diet should be used, such as rice gruel, sago, tapioca, panada &c. Every twenty four hours after the first exhibit a laxative, especially a dose of castor oil, or neutral salts, or what is still better in low cases of dysentery, is the oil of butter. It operates as a laxative, and at the same time affords nourishment to the system. These will carry off the Scybala and the morbid secretions of the liver, and mucous membrane of the intestinal canal. The daily use of the laxative should not inter-
cept the exhibition of the former remedy, since it is considered only as auxiliary, though most practitioners begin with mild purgatives as the preliminary step, followed by anodynes at

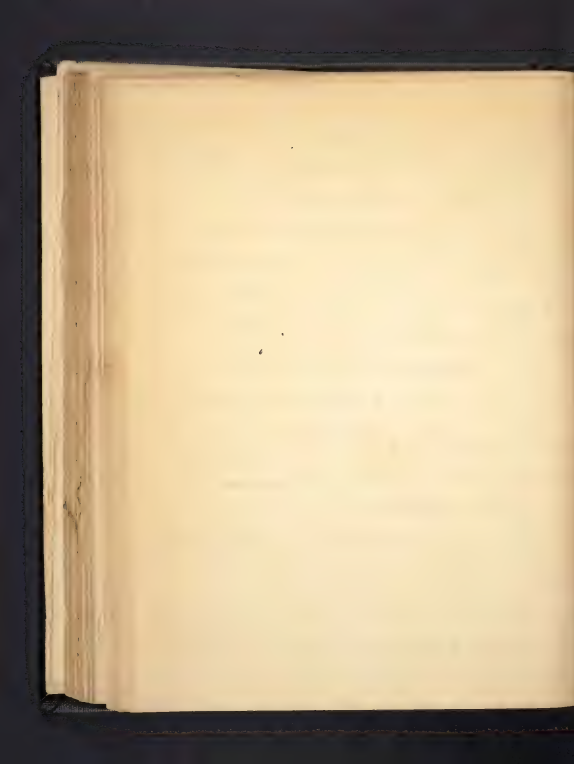
bedtimes. But this is a very tedious, painful, and unsuccessful plan of practice. I have myself been a witness to the beneficial effects of the above combination of calomel, Spicacuan and opium. Yet the disease will not always yield to it; and where it does not, entirely succeed, I have seen the turpentine julap and opiates at night complete the cure. The julap that was used, was made in the following manner. Take of turpentine one ounce, castor oil one ounce, gum arabic, and sugar each half an ounce, laudanum thirty drops, water four ounces. mix, and give a table spoonful every three hours. In the expiration of three or four days, in the majority of cases you will perceive a mitigation of the symptoms, from the calomel, opium and Spicacuan alone, though this may not be very conspicuous, till the mouth becomes affected, when this takes place, you will find a revolution in the phenomena of the disease.

The skin will feel soft and moist, the tenues and tenismus will be abated, the stools will appear faeculent, impregnated with natural looking bile. lips mixed with mucus and blood, more easily passed, and having more the common faecal smell. you will now have very little to do, except guarding your patient against cold, and imprudence in diet; the whole of the dysenteric symptoms will vanish, and the patient will have a speedy convalescence. Dysentery is a disease perhaps more steady and uniform in its character than almost any other, yet it is sometimes so modified by climate, idiosyncrasy, and various other circumstances, that it will require all the light which experience has shed on it.

Thus in ^{one} individual, the inflammatory symptoms will so far predominate, that bleeding must be carried to a great extent, and indeed in such cases every other consideration must for a time

give way, and all our efforts must be to guard the intestines from disorganization, by general and local depletions, blistering &c.

It was from the benefit of general bleeding in such cases, that Dr Somers, an army physician drew the bold conclusion that dysentery, was to be cured, almost entirely by bleeding, from the arm to syncope. Blamfield in a recent work on dysentery regards it, as little more than inflammation of the bowels, producing stricture in different portions of the canal, and relies principally on venesection and purgatives for a cure. And indeed when connected with an inflammatory diathesis, our chief reliance must be placed on venesection, general and local, bleeding, and the antiplogistic plan in full. In those cases where this fails the prospect of success is very narrow. We have to encounter prostration of strength, depression of spirits, with a loss of appetite and



some degree of thirst, followed by a sense of fulness, tension and tenderness upon pressure on the abdomen. The desire to evacuate becomes urgent, stools dyscrasie and consisting of blood and mucus, resembling the washings of beef, a suppression of urine, and painful tenesmus takes place, with an incessant craving for liquids, especially cold water. The skin is now either parching hot, or covered with a profuse perspiration. The pulse is less affected than might be expected, but sometimes it is full, with a peculiar thrilling sensation under the fingers. This is always a dangerous symptom in the advanced stage of this disease. The lassitude is converted into the utmost degree of anxiety and apprehension of death, the patient appearing highly reluctant to part with his medical attendant, though fully sensible of the unavailing efforts of medicine. The discharges by stool, which are frequently involuntary, and accompanied by the most intolerable fetor, mixed occasionally with shreds of mem-

branes, and quantities of purulent matter. There is also a protrusion of gut forming a procidentia ani, when the symptoms assume this degree of aggravation death, so closes the scene. On dissection, the large intestines are found inflamed, there is an accumulation of lymph and serum in the abdomen, and adhesions between the convolutions of the small intestines, though they are sometimes sound, at others exhibiting slight inflammatory patches adhering to the omentum. The colon exhibits traces of the principal ravages of the disease, from a slight external blush, to a deep lived hue, the caliber of this gut is sometimes much diminished by the thickening of its coats. The liver is sometimes apparently sound at others preternaturally small and indurated, or enlarged & scirrhous. The gall bladder is often much distended with bile which is generally vitiated in appearance. The spleen, pancreas, and kidneys are sometimes flaccid and enlarged: in some cases they have been found gangrenous: the other viscera of the abdomen are generally sound.

Doth Chapman